

REMARKS

This amendment is in response to a non-final Office action (Paper No. 12) dated 26 March 2003. Upon entry of this amendment, claims 1-5, 8-25 and 27-30 will be pending in this application. Applicant has amended claim 1 by this amendment, has newly added claims 28-30 by this amendment and has canceled claims 6, 7 and 26 without prejudice or disclaimer as to its subject matter by this amendment.

In Paper No. 12, the Examiner has rejected claim 26 under 35 U.S.C. 112, first paragraph. Applicant has canceled this claim without prejudice or disclaimer as to its subject matter making this rejection moot.

The Examiner has rejected claims 1-4, 19-25 and 27 under 35 U.S.C. 102 (e) as being anticipated by Abe *et al.*, U.S. Patent No. 6,151,046. Applicant has amended claim 1 making this rejection moot.

Regarding the rejection of claims 1-4, 19-25 and 27, Applicant has the following comments:

1. Applicant's printed circuit board is not analogous to board 4507 in Abe '046

In Paper No. 12, the Examiner seems to be equating Applicant's printed circuit board 125 with reference numeral 4507 in Abe '046. In Paper No. 11, Applicant explained that this was

inappropriate because the printed circuit board in Applicant's invention is not part of the removable ink cartridge and thus is not removed or separated from the carrier of the printer when the ink cartridge is removed or replaced. Applicant explained that board 4507 in Abe '046 is part of the ink cartridge and is inseparable from the ink cartridge in Abe '046. This is because Abe '046 teaches that the ink container and the recording head form the head cartridge and that the entire head cartridge including the board 4507 is replaced in Abe '046 when the ink container runs out of ink. Thus, in Abe '046, board 4507 is separated from the main assembly of the recording apparatus and is discarded. This is because, in Abe '046, the ink container and the recording head are inseparable except during the manufacturing thereof (see col. 2, lines 50-55 of Abe '046 for example). Thus, board 4507 and the ink container are replaced in Abe '046 when the ink container runs out of ink. Meanwhile, in Applicant's invention, the PCB board 125 is always attached to the carrier of the printer throughout the life of the printer and is not removed or replaced when the ink cartridge 10 is replaced. Thus, the purpose and construction of Abe '046 is entirely different from that of Applicant's invention.

2. Applicant's elastic members 130 is not analogous to terminals 4501 in Abe '046

Applicant's invention focuses on the elastic electrical members 130 on the non-removable PCB board 125 that form contact with the contacts 12 of the removable ink cartridge 10. However, in Abe '046, terminal 4501 (including reference numerals 4513 and 4514) is different from Applicant's invention as terminal 4501 connect to a recording head. This electrical connection between the terminal 4501 and the recording head is never severed when


the ink container in Abe '046 is replaced. This is because, in Abe '046, the recording head and the ink container are both replaced when the ink container runs out of ink. Therefore, it is inappropriate for the Examiner to equate terminals 4501 in Abe '046 in Paper No. 12 for a teaching of Applicant's elastic spring members 130. This is because the elastic spring members 130 are never removed from the carrier and the printer when changing the ink cartridge as in Abe '046. Also, elastic spring members 130 form electrical contact with contacts 12 of removable ink cartridge 10 when ink cartridge 10 needs to be replaced in Applicant's invention. Thus, in Applicant's invention, the electrical and physical contact between the elastic spring members 130 and the contacts 12 of the removable ink cartridge 10 is severed when the ink cartridge is replaced. However, in Abe '046, the electrical contact between contact portion 4514 and the recording head is never severed when the ink container is exchanged. Since Applicant's invention focuses on the specific structure of these elastic members 130, the purpose and construction of Abe '046 and the terminals 4501 and contact portion 4514 of Abe '046 is unrelated to Applicant's elastic spring members 130 and Applicant's contact portion 132.

In order to further emphasize the above differences between Abe '046 and Applicant's claims, Applicant has amended claim 1 by this amendment. Applicant has also newly added claims 28-30 by this amendment. These claims claim the specific structure of the elastic members 130 and their relationship to the housing 140. These features are neither taught nor suggested by Abe '046.

In view of the above, all claims are deemed to be allowable and this application is believed to be in condition to be passed to issue. Should any questions remain unresolved, the Examiner is requested to telephone Applicant's attorney.

No fee is incurred by filing this Amendment.

Respectfully submitted,



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